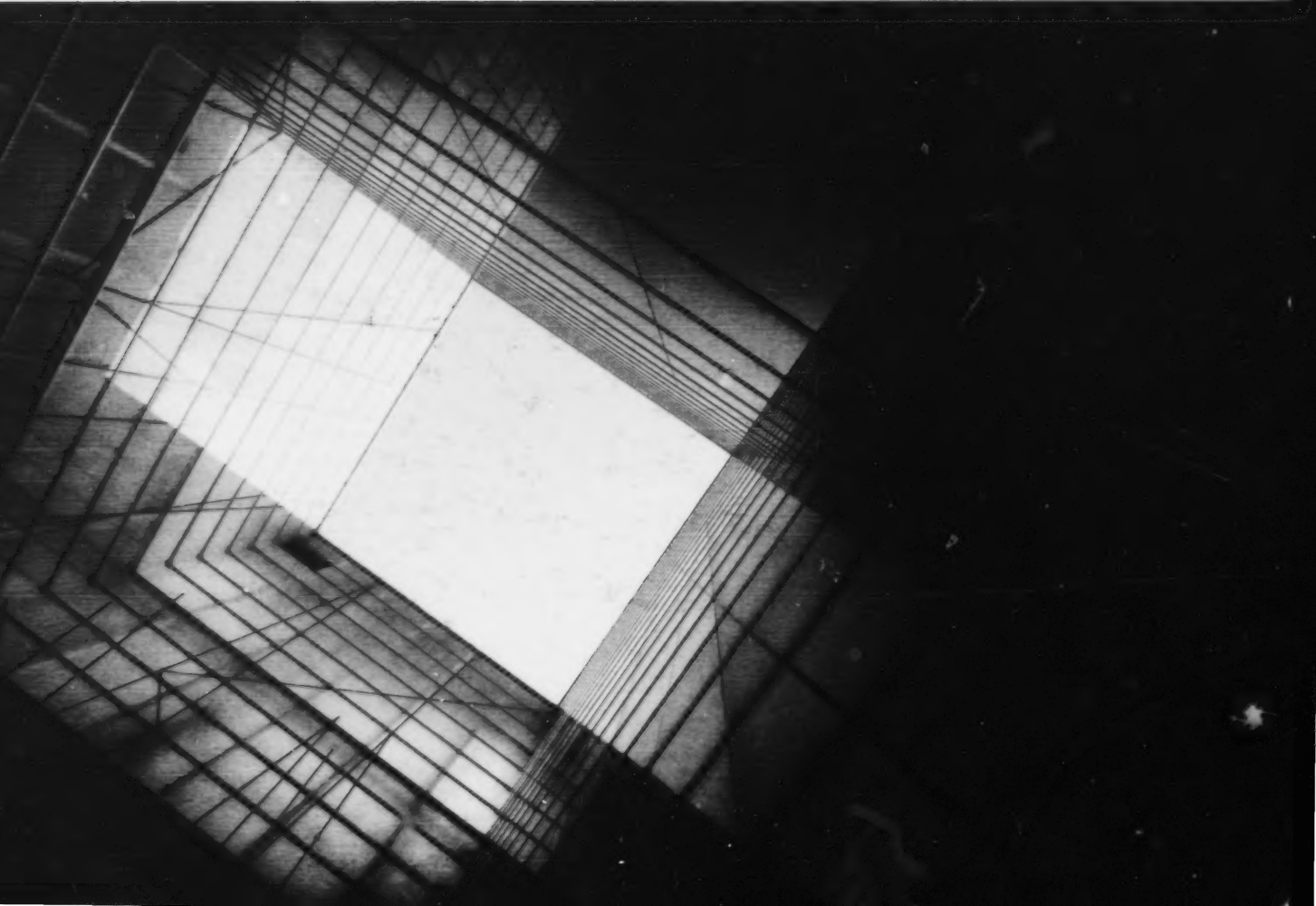
Review + Research Plan

2007

Higher Education Quality Council of Ontario

Conseil ontarien de la qualité de l'enseignement supérieur



CONTENTS

President's Introduction 1

1. Context 4

2. Accessibility 7

3. Learning Quality 20

4. Accountability 30

5. Inter-institutional Collaboration 34

6. Conclusion 38

President's Introduction

In January, I became the founding president of the Higher Education Quality Council of Ontario. I accepted the appointment for two reasons: first, out of gratitude for a rewarding career in postsecondary education; and second, out of a sense that the time is right for a significant advance in higher education that the Council is well positioned to help realize.

When I joined the English Department at Carleton University in 1966, the Ontario system of higher education was still very much under construction. Established universities were expanding and new ones were being founded. The community college system was just coming into being.

It is easy to romanticize the past; not everything about that period was sweetness and light. But it is hard in retrospect to avoid the feeling that Wordsworth had about the French Revolution, "Bliss was it in that dawn to be alive, and to be young was very heaven." Put simply, the foundations of Ontario's higher education system were laid, and well laid, in the 1950s and 1960s, and the foresight and ambition of those responsible have carried us a great way.

It seemed, however, that no sooner had the rose bloomed than the worm found it. The 1970s and 1980s seemed then, and seem now, lean years by comparison. Little did we think at the time that the nineties, with their severe budget-cutting programs, would actually make us nostalgic for the previous two decades.

Since the mid-nineties, however, despite the pressures of slower-than-expected economic growth and competing needs in other public programs, governments and institutions have made some impressive uphill gains. The system of colleges and universities in Ontario has expanded to accommodate more than one hundred thousand additional students. Impressive new facilities have been built, relevant new courses and programs introduced, and new learning technology has been widely adopted. The research capacity, both theoretical and applied, of our institutions has been transformed, and student-assistance programs have been improved.

These are palpable signs of progress, and some self-congratulation might be in order were it not that certain fundamental questions remain unanswered, including: Has the quality of teaching and learning improved? Are students mastering the skills and knowledge they will need to prosper as workers and citizens in the world they are inheriting? Can they write, read, reason, and perform as well as students in other educational jurisdictions?

In a recent book President Derek Bok of Harvard University considered such questions in the American context and concluded that the honest answer "is that we do not know. In fact, we do not even have an informed guess that can command general agreement."[1]

1. Derek Bok, *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More* (Princeton: Princeton University Press, 2006), 31.

The Honourable Bob Rae came to the same conclusion after his review of postsecondary education in Ontario in 2005. One of his report's conclusions was "we simply don't know enough about how we're doing and how others are doing."[2]

With the creation the Higher Education Quality Council of Ontario the province is joining a growing community of interest in how such questions may be addressed and the quality of higher education enhanced. Central to this interest is a desire on the part of governments and educators alike to understand, demonstrate, and better manage the determinants of educational quality. This desire, in turn, reflects an expanding awareness of the centrality of education to personal fulfillment, civic engagement, and economic progress for people and nations.

It is this, in part, that makes me hopeful the time is right for significant advance. It is also that the evidence of renewed engagement with higher education is widespread. Governments in several provinces are conducting or have recently completed reviews of their postsecondary education systems. At the national level, the Canadian Council on Learning has launched an ambitious program of research and communications on higher education. Magazines and newspapers vie to find the right approach to assessing and ranking the quality of individual universities. Businesses, associations, and foundations are exploring whether higher education is adequately preparing students to meet the country's economic and social needs.

This keener interest is matched within postsecondary institutions. In Ontario, universities and colleges have taken up the responsibility of surveying students to find out how fully engaged they are in their own learning – how much time they spend doing homework, meeting with faculty outside of scheduled classes, discussing their courses with other students, and the like. The introduction of these surveys has been supported by the Ontario government as part of its effort to find new ways of assessing the results of public investments in higher education.

It is encouraging, and a sign of commitment to getting it right, that the Ontario government has chosen to create an independent body to provide ongoing research and advice on all aspects of postsecondary education, including quality, access and accountability. While the Council's name emphasizes quality, the government has recognized – wisely, in my view – that quality and access must go hand in hand.

Under Frank Iacobucci's chairmanship, the Higher Education Quality Council of Ontario is, as this document shows, initiating an ambitious research program. The largest single piece of the program will aim to develop a quality framework for higher education. Many discrete activities take place today in the name of quality, including program appraisals, student surveys, key performance indicators, measures of inputs per student, and the like. Each of these activities was developed separately. But in Ontario we have not until now asked: how do the pieces fit together? What more do we need to do so that students, parents, politicians and the public at large can feel confident that our colleges and universities are doing what we expect of them?

While the Council's mandate is broad, it seems inevitable that our initial focus will be the experience of undergraduate students at universities and colleges. The appetite for evidence about the quality of students' education is large, and

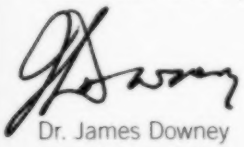
[2] Honourable Bob Rae, *Choice: A Leader in Learning* (Toronto: Queen's Printer for Ontario, 2005), 16.

the Council is, in part, a response to the growing interest in the quality of the undergraduate experience. Our research will, we hope, lead to better policy advice on how to enhance that experience.

We will not seek to recreate the findings of other studies, but rather to assess what is already available, determine what gaps remain, and pursue research with the very specific objective of making concrete policy recommendations on how best to enhance higher education in Ontario. In doing so, the Council is encouraged by the prospect of understanding other approaches in a variety of jurisdictions, which will ultimately inform and enhance our work.

The Council's board of directors and staff are dedicated to working diligently to deliver on the individual research projects that comprise the *2007 Review and Research Plan*. I would particularly like to acknowledge the leadership of Dr. Ken Norrie and the support of Dr. David Trick in the preparation of the Council's first research plan.

Research results are harvested, not manufactured. It will take time to design and conduct projects that will yield the knowledge to form the basis of the policy advice the Council offers the government. But we are confident that, with the anticipated cooperation and support of many of the best minds in Ontario higher education, we can accomplish the ambitious agenda we have set for ourselves, and which we describe in the chapters that follow.



Dr. James Downey
President and CEO,
Higher Education Quality Council of Ontario

Chapter 1: Context

The roots of the Higher Education Quality Council's *2007 Review and Research Plan* lie in two seminal documents:

1. *Ontario: A Leader in Learning* – referenced within this document as the Rae Report – was released in February 2005 following a comprehensive review of the postsecondary education sector and wide consultations with key stakeholders and the public. The report called on Ontario to adopt:

   ...a mission for Ontario as a Leader in Learning, founded on: access for all qualified students to higher education, excellence and demonstrable quality in teaching and research, institutional autonomy within a public system, and the mutual responsibility of government, institutions and students.[3]

2. *Reaching Higher: The McGuinty Government Plan for Postsecondary Education*, released as part of the May 2005 Budget, outlined the Ontario government's six-year action plan for higher education. It committed an additional $6.2 billion to postsecondary education and training over the period 2004-05 to 2009-10. It also set out expectations for the sector:

   With the Reaching Higher investments, the people of Ontario will see improved access and quality in postsecondary education, better facilities, and postsecondary institutions will be held accountable for accomplishing these objectives.[4]

These goals are reflected in the statute that established the Council, *the Higher Education Quality Council of Ontario Act, 2005*.

In August 2006, the Chair of the Council released a discussion paper, "Priorities and Research Agenda for the Higher Education Quality Council of Ontario," setting out possible roles for the Council and related research priorities. More than forty universities, colleges, associations and individuals responded, providing an essential contribution in developing this research plan.

3. *Ontario: A Leader in Learning*, 29.
4. "Reaching Higher: The McGuinty Government Plan for Postsecondary Education," 2005 Ontario Budget Backgrounder, May 11, 2005, 1.

Reading this Report

Based on insights from these foundation documents, and the discussion paper responses, the Council proposes to address three framework questions:

- What should Ontarians expect from our postsecondary education sector?
- How well is the sector meeting these expectations?
- Where outcomes fall short of expectations, how can the sector's performance be enhanced?

The Council accepts that there is a broad consensus on expectations for Ontario's postsecondary education sector. It will be ***accessible*** to all qualified and interested students. It will provide students with ***quality learning*** opportunities. And it will be ***accountable***. Accordingly, we have structured our research strategy around these three themes.

We add a fourth theme – ***inter-institutional collaboration***. The Act creating the Council specifically asks us to consider methods of fostering cooperation between and among various postsecondary educational institutions, especially in recognizing courses and programs of study provided at other institutions.

Accessibility, learning quality,[5] accountability and inter-institutional collaboration are very broad goals, however. Thus the first challenge within each theme is to express expectations more concretely, and in particular in a way that facilitates setting targets and monitoring actual performance against these targets. With targets properly specified, we move on to monitoring and evaluation. How are we doing relative to our targets? Where we are meeting or exceeding expectations, what is behind this success and what do we need to do to maintain it? Where we are falling short, how do we explain the under-performance and what do we need to do to improve it? To effectively answer the latter question we must take into consideration supply-side issues, including: the capacity of the system to meet society's expectations and to respond in a timely and responsible fashion to new opportunities and challenges.

Our starting point for each theme is to ask ***what we know*** already, or at least what we think we know, about the key issues. Within Ontario's higher education sector, there is much knowledge of measurement, evaluation and reporting, and considerable scholarly research and actual experience to leverage. Further, Ontario is hardly unique in its desire to establish explicit goals for postsecondary education and to monitor and evaluate performance against these goals. We have much to learn from the experiences of other provinces and countries.

Next, we ask ***what we need to know*** to answer the three framework questions. Where are the gaps in information and in our understanding of the information?

At the conclusion of each chapter, we structure ***our research priorities*** accordingly.

5 Our emphasis is on learning quality. We recognize the importance of high-quality research activity, and we are fully supportive of the quest for excellence. However, we do not see our mandate extending directly to monitoring and enhancing research activity at this time. A number of federal and provincial departments and agencies, working with universities and colleges, have emerged in the past decade to perform this role. Research will enter our deliberations indirectly when we consider the link between teaching and research. It will also be a key factor when we turn our attention to institutional capacity, where the challenge is to ensure that institutions can provide excellence in both teaching and research activity.

The chapter order follows a logical sequence for thinking about the activities of the postsecondary education sector: admitting students, providing them with a quality learning environment, being accountable for decisions, and cooperating as appropriate with other institutions. The order does not reflect in anyway relative rankings of priorities for research and advice.

The Research

Our approach to research will be wide-ranging, eclectic and inclusive. It will bring together researchers and practitioners. It will feature major, long-run research projects, expert think pieces on specific issues and in-house work by Council staff. We will organize formal conferences, but also rely extensively on workshops and informal colloquia.

As with any long-term research strategy, this document should be viewed as the first step in what is intended to be a dynamic process of research on Ontario's postsecondary education sector. The topics and timelines may evolve based on research findings. We welcome suggestions for additional topics, and we know with certainty that new questions will emerge out of the projects we undertake.

The Higher Education Quality Council will issue a *Review and Research Plan* annually. Therefore, in 2008 we will publish a document that will report initial results and findings from our research activities in 2007-2008. It, as well as all future *Review and Research Plans* will also update the Council's research priorities and planned activities for the three-year period following publication.

Summary Of Acronyms

C G P S S	Canadian Graduate and Professional Student Survey (universities)
C O U	Council of Ontario Universities
C S R D E	Consortium for Student Retention Data Exchange (universities)
C V S	Credential Validation Service (colleges)
F I T S	Freshman Integration and Tracking Systems (colleges)
K P I	Key Performance Indicators
M T C U	Ministry of Training, Colleges and Universities
N S S E	National Survey of Student Engagement (universities)
O C A S	Ontario Colleges Application Service
O C G S	Ontario Council on Graduate Studies (universities)
O C S E S	Ontario Colleges Student Engagement Survey
O E N	Ontario Education Number
O U A C	Ontario Universities Application Centre
P Q A P A	Program Quality Assurance Process Audit (colleges)
U P R A C	Undergraduate Program Review Audit Committee (universities)

Chapter 2: Accessibility

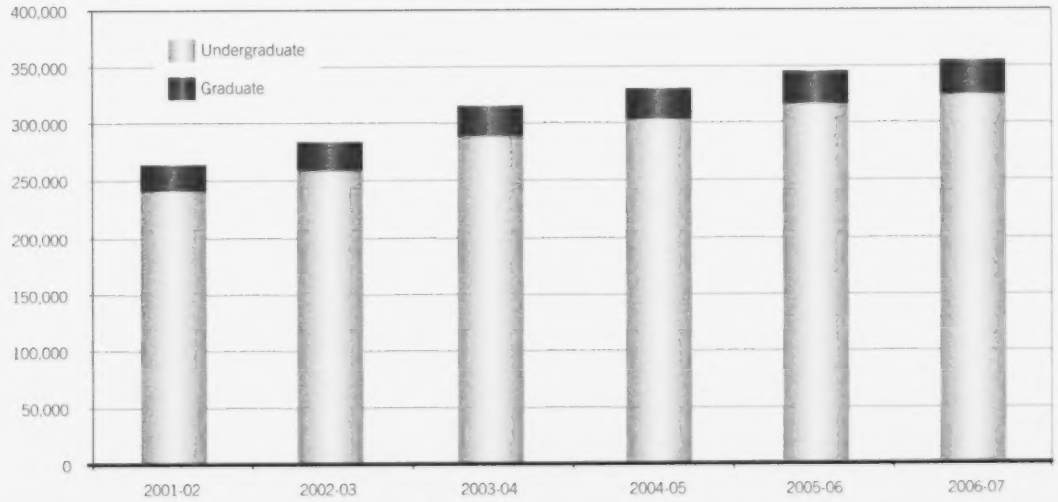
What can we reasonably expect of the postsecondary education sector with respect to accessibility? At the most general level, this question is relatively easily answered: all qualified and interested students should be able to achieve a postsecondary education. This means gaining admittance to an institution of choice and then successfully completing one or more degree or diploma programs.

Accessibility involves both supply and demand considerations. The demand side is students seeking admission to colleges or universities, driven by a variety of economic and non-economic reasons. The supply side is the capacity of institutions to accommodate this demand. Both perspectives are essential in understanding accessibility.

What We Know

Students are flocking to postsecondary education in Ontario, and institutions to date have been finding ways to accommodate this demand. Figure 1 shows total full-time equivalent enrolment in Ontario universities over the period 2001-02 to 2006-07.[6] Enrolment grew by 91,000 students, or 34.6 per cent in these years. This includes a 35.2 per cent increase in undergraduate enrolments and a 28.3 per cent increase in graduate enrolments. Figure 2 shows that there were 16,000 more college registrants in 2006-07 than in 2001-02, an increase of 9.2 per cent.

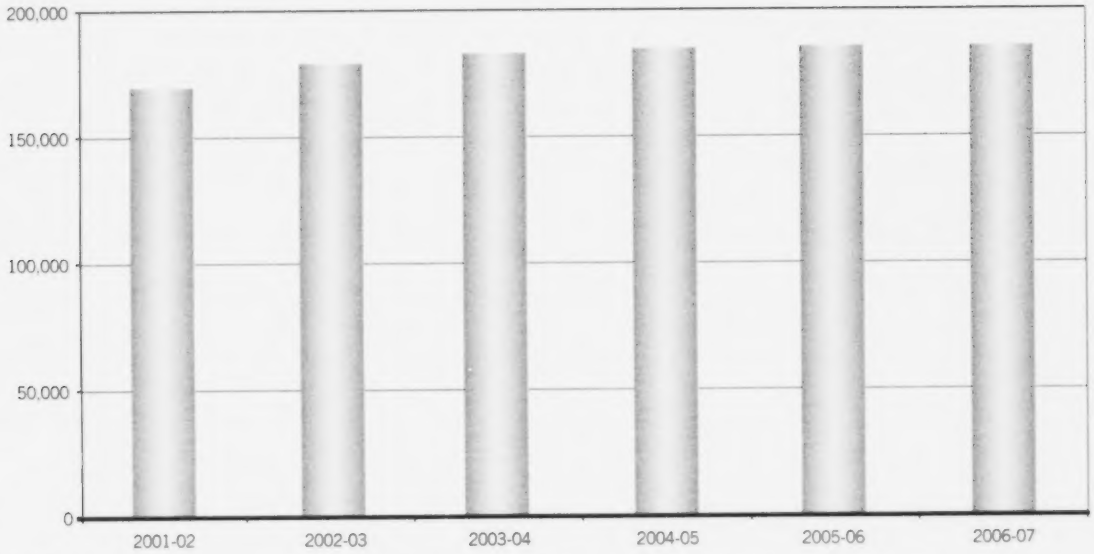
Figure 1: University enrolments, 2001-02 To 2006-07



SOURCE: Ministry of Training, Colleges and Universities (MTCU). Full-time equivalent students. Excludes international students and other students ineligible for MTCU postsecondary funding.

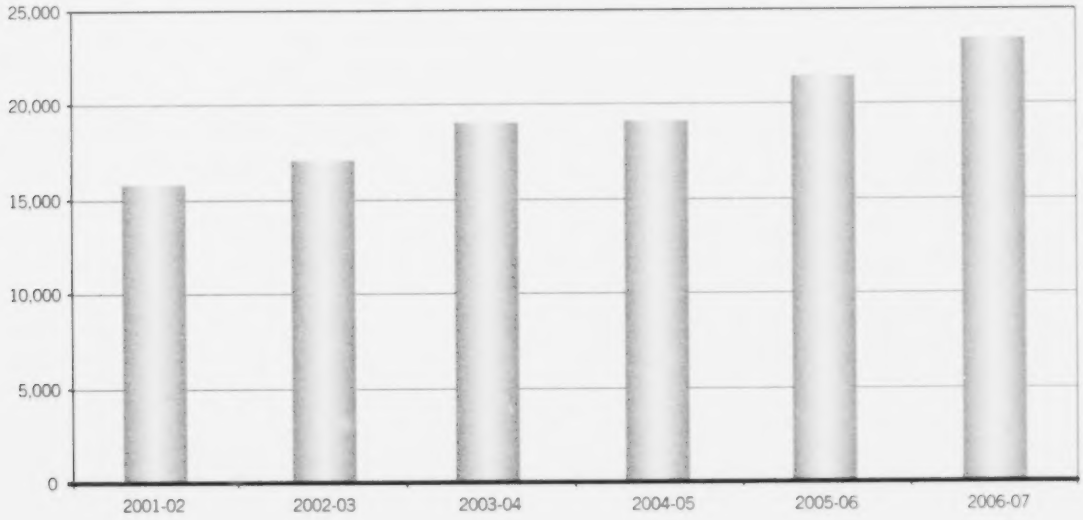
6. For consistency, this document normally shows data for the past six years, i.e. 2001-02 through 2006-07. 2001-02 is chosen as a base year because it was the last year prior to the one-time increase in secondary school graduations attributable to secondary school reform (the "double cohort"). New admissions to postsecondary education were exceptionally high in 2002, 2003 and 2004 due to the double cohort.

Figure 2: College enrolments, 2001-02 to 2006-07



SOURCE: MTCU. Full-time equivalent students. Excludes international students and other students ineligible for MTCU postsecondary funding.

Figure 3: New apprenticeship registrations, 2001-02 to 2006-07



SOURCE: MTCU

Figure 3 shows that the number of new registrations in apprenticeships has grown from 15.8 thousand in 2001-02 to nearly 25 thousand in 2006-07 or by over 60 percent. This increase reflects the shortage of skilled workers in some trades and the government's policy of increasing students' awareness of apprenticeship options.

EVALUATION CRITERIA These aggregate enrolment numbers alone do not tell us how close Ontario is to meeting the general expectation with respect to accessibility outlined above, however. To make the goal operational, we propose to judge the accessibility of Ontario's postsecondary education system according to how well it meets three criteria:

1. How do participation rates in postsecondary education in Ontario compare to those in other relevant jurisdictions? That is, how well do we do relative to our peer jurisdictions in motivating students to apply for postsecondary education and then in accommodating these demands? Given the importance of postsecondary education to economic growth and social cohesion, and given Ontario's relative prosperity, it is reasonable to expect that participation rates in postsecondary education in this province would be among the highest in Canada and that they would compare favourably to those in other advanced economies. This gives us a target against which to judge actual outcomes. If participation falls short of this mark, we need to ask why and to find ways to improve performance. We cannot rest on our laurels should participation meet or exceed this mark, however, or Ontario will surely fall behind.

2. How do the participation rates in higher education for specific socioeconomic groups compare with those groups' representation in the population as a whole? Given the importance of fully utilizing all human resources, and given our strong commitment to equality, it is reasonable to expect that there should be no systematic differences in participation rates by gender, income class, family status and so forth. This gives us a second target against which to judge actual outcomes. If the pattern of participation falls short of this mark, we need to ask why and to look for ways to improve performance. If the record meets or exceeds this mark, we need to ensure that we maintain this desirable state.

3. Are participation rates in postsecondary education consistent with projections about the future economic and social needs of Ontario? Simply making available enough spaces in higher education to meet student demand may be an inadequate test of accessibility. We should take into account what types of spaces are being created. For example, do we have enough new registrants in apprenticeships, and are there adequate places for them? Is the balance of spaces between colleges and universities, or between undergraduate and graduate programs, appropriate to meeting future needs? Is there an adequate number of places in programs that are intended to serve specific trades or professions? If the answer to any of these questions is "no", we need to enquire into why enrolment patterns are not more responsive to labour market opportunities. Since we cannot predict longer-run future needs with any certainty, we also need to find ways to ensure that the system is able to adapt to new challenges and opportunities.

AGGREGATE PARTICIPATION IN HIGHER EDUCATION: WHERE DOES ONTARIO STAND?

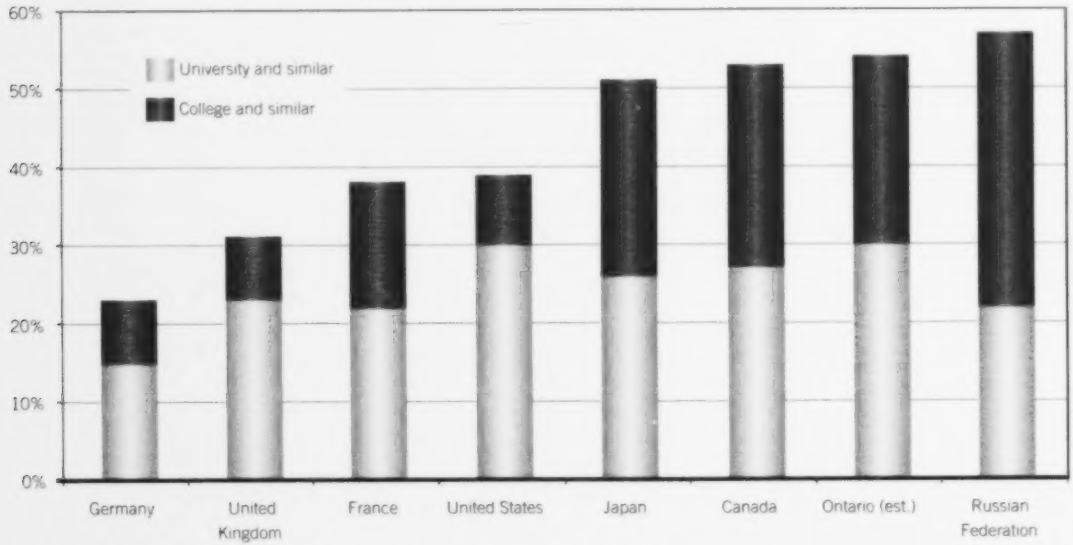
Most of the information on participation rates in higher education suggests that Ontario compares well with many advanced economies. Yet the situation is not static, and there is good reason to pay attention to whether Ontario will continue to fare as well in the future, particularly as other countries enhance their higher education systems.

Figure 4 shows the share of the Ontario population age 25-34 that has completed a postsecondary education, compared with the G8 countries.

Figure 4 suggests that Ontario surpasses all countries except the Russian Federation in the share of people in this age cohort who have completed college[7], and it is comparable to the United States in the share of those who have completed university. The figure includes immigrants who completed their education before coming to Canada, and so it may overstate the opportunities available to students graduating from Canadian high schools. It focuses on the cohort age 25-34, but it excludes older cohorts where Canada's record compares less favourably with that of the United States. These cohorts are shown in Table 1.

Figure 5 shows the share of the population age 20 who are enrolled in postsecondary education in the G8 countries and in selected countries that have made higher education part of their strategy for economic growth. Ontario performs well compared to some advanced economies, but its performance does not lead the group.

Figure 4: Percentage of population age 25-34 that has completed postsecondary education, Ontario and G8 countries, 2004



SOURCE: OECD, *Education at a Glance 2006*, Table A1.3a. Ontario estimated by HEQCO. Data for Italy unavailable.

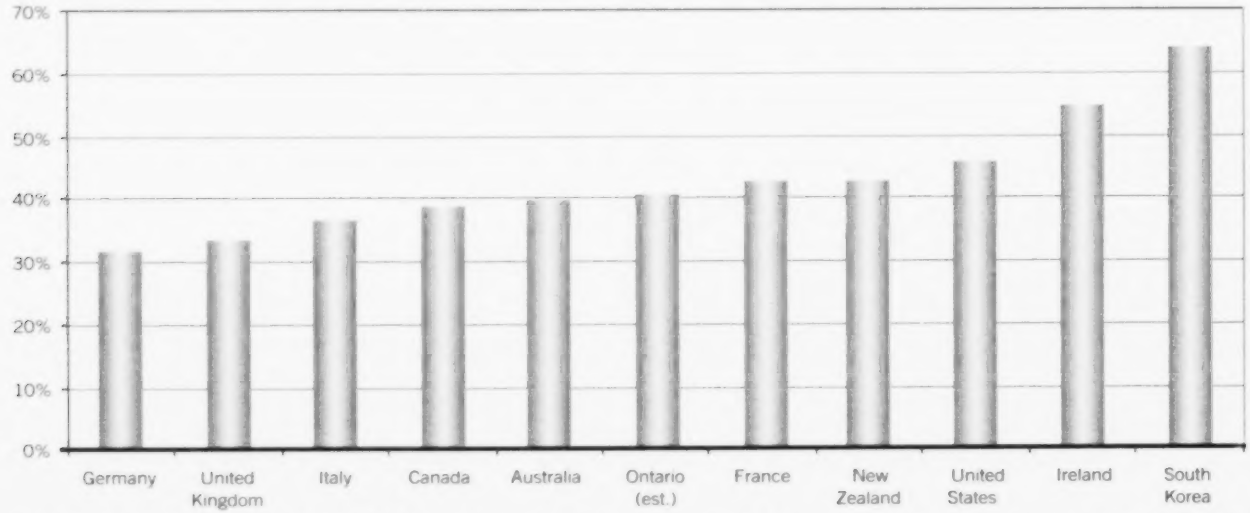
7. College, in this context, does not necessarily mean a public college. The OECD defines this category to include any program focused on practical, technical or occupational skills with a minimum duration of two years full time equivalent at the postsecondary level. Thus there may be problems with the comparability of these data. See AUCC, "Trends in Higher Education Volume 1: Enrolment" (2007) pp.21-22 for further discussion.

Table 1: Percentage of population that has completed postsecondary education, by age, Canada and the United States, 2004

	College or similar					University or similar				
	25-34	35-44	45-54	55-64	25-64	25-34	35-44	45-54	55-64	25-64
Canada	26	23	21	15	22	27	23	20	18	22
United States	9	10	10	8	9	30	30	31	28	30
Difference	+17	+13	+11	+7	+13	-3	-7	-11	-10	-8

SOURCE: OECD, *Education at a Glance 2006*, Table A1.3a.

Figure 5: Share of population age 20 attending postsecondary institutions, Ontario and selected countries, 2004



SOURCE: OECD, *Education at a Glance 2006*, Table C1.3. Ontario estimated by HEQCO. Data for Canada and Ontario are affected by double cohort. Data for Japan and Russian Federation unavailable.

These comparisons suggest the need to carefully define what we mean when we speak of aggregate participation in higher education. When should we focus on participation by young people who are recent graduates from secondary school, and when should we consider participation by adults of all ages? Which jurisdictions should Ontario compare itself to? How should we take into account differences among jurisdictions in the number of years that a student attends higher education, the type of institution the student attends, and the number of credentials the student receives?[8]

PARTICIPATION PROFILES: WHERE DOES ONTARIO STAND?

It is well established that participation in postsecondary education is not evenly spread across the population.

Students from low-income families are underrepresented relative to those from middle-income and upper-income families. National evidence from Statistics Canada suggests that this pattern is especially true for university students. Colleges are more likely to attract students proportionately from all income quartiles.[9]

The Rae Report identified several other socioeconomic groups that are significantly underrepresented:

- Students who would be the first generation in their families to attend postsecondary education are underrepresented. Students whose parents graduated from college are almost twice as likely to attend postsecondary education as students whose parents did not seek education beyond high school. Students whose parents graduated from university are about two-and-a-half times as likely to attend postsecondary education as students whose parents did not attend beyond high school.

- Aboriginal people are as likely as non-Aboriginals to hold a college diploma, but are only about one-third as likely to hold a university degree.

- People with disabilities are almost as likely as other Ontarians to hold a college diploma, but are only about half as likely to hold a university degree.[10]

While there is some link between low income and underrepresentation for these groups, non-financial considerations are at work as well.

Francophone students are also of interest, but for different reasons. Data from the 2001 Census show that the share of francophone secondary school graduates who are attending postsecondary education at age 20-24 is approximately the same as for non-francophones, as is the share of francophones age 20-24 who hold a university degree.[11] Yet there are significant accessibility issues in ensuring that francophone students have access to a broad range of programs in their first language within a reasonable geographic distance.

8. For a recent critique of international data on participation in higher education, see Association of Universities and Colleges of Canada, *Trends in higher education, Volume 1: Enrolment* (Ottawa, 2007), 21.

9. A. Rahman, J. Situ and V. Jimmo, "Participation in postsecondary education: Evidence from the Survey of Labour and Income Dynamics" (Ottawa: Statistics Canada, catalogue 81-595-MIE, 2005); and Marc Frenette, "Why Are Youth from Lower-Income Families Less Likely to Attend University? Evidence from Academic Abilities, Parental Influences and Financial Constraints" (Ottawa: Statistics Canada, catalogue 11F0019MIE, 2007).

10. Ontario a Leader in Learning, 64-66.

11. Ontario Office of Francophone Affairs, "Statistical Profile: Francophone Youth in Ontario" (Toronto: Queen's Printer for Ontario, 2005), 9-11.

A number of government initiatives in recent years have attempted to address barriers to participation related to family income and demographic status. One of the Council's challenges will be to find effective ways to measure participation by underrepresented socio-economic groups so that the effectiveness of these and other policy measures can be tracked.

PARTICIPATION AND ONTARIO'S FUTURE NEEDS: WHERE DOES ONTARIO STAND? Continued economic expansion, population aging and the trend towards early retirements have created significant short-term shortages of workers in some fields. As the population ages over the next decade and beyond, there is growing potential for future shortages of skilled and educated workers in many professions and trades. Reports have raised concerns about future shortages in a variety of construction trades, manufacturing trades, and managerial positions. A 2006 survey found that the majority of managers and labour leaders in both the public and private sectors in Ontario considered shortages of skilled labour to be a serious problem. Recent government initiatives have sought to address shortages in the health professions, among the university professoriate, in apprenticeable trades, and in other trades and professions.[12]

What We Need To Know

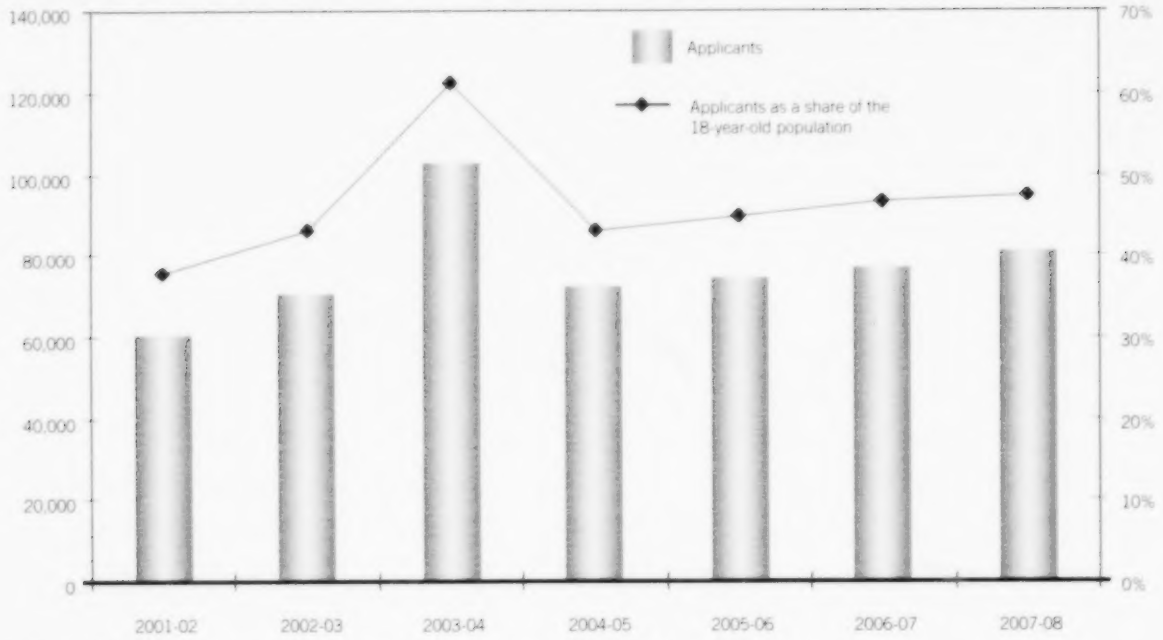
This overview suggests that the Council's research agenda needs to pay considerable attention to the determinants of enrolments in Ontario's colleges and universities. This means looking at both the demand for postsecondary education[13] and the capacity of universities and colleges to accommodate the demand.

SOURCE POPULATION AND APPLICATION RATES The number of applications to college or university depends on the size of the source populations and on the application rate – that is, the proportion of the source population that seeks admission. Applicants to postsecondary education are drawn from two source populations:

1. *Those students currently in their graduating year in the Ontario secondary school system.* With statistical data available from a number of sources, it is relatively easy to gauge the size of this group and to project it forward based on demographic profiles and retention rates.

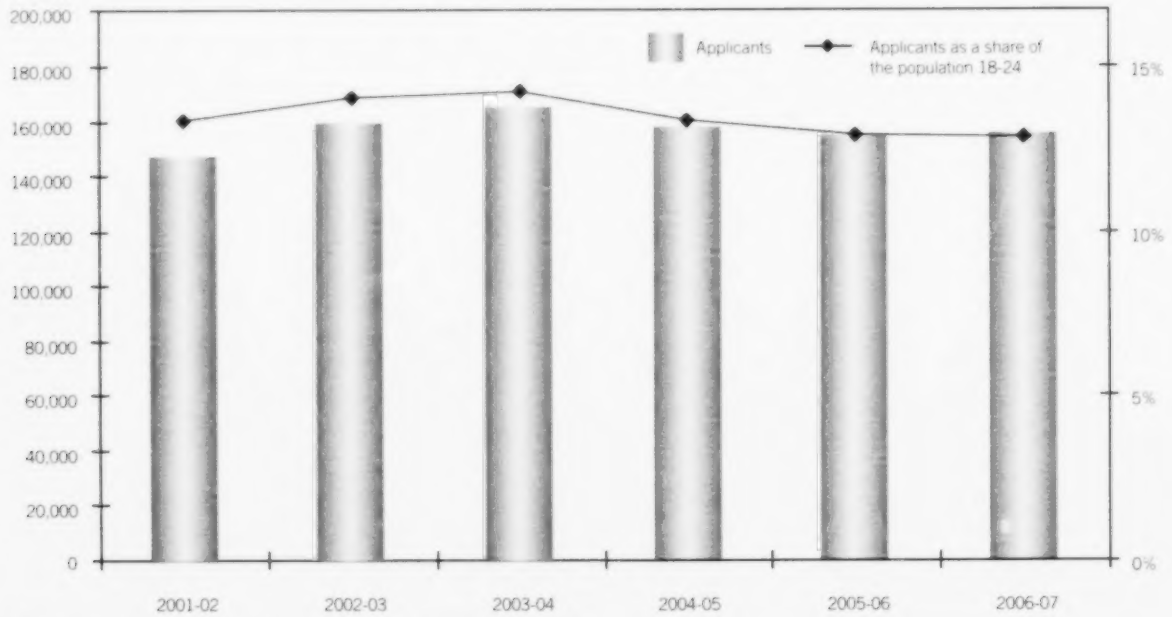
2. *Everyone else who potentially might consider applying to an Ontario college or university.* This group includes those who interrupted their studies after high school, those applying from other provinces or countries, adult learners returning to school later in life, those returning for a second diploma or degree, and so forth. While this source population is not easily quantified, it may become increasingly important as more students see the need for

Figure 6: Secondary school applicants to university, 2001-02 to 2007-08



SOURCE: Ontario Universities' Application Centre; Ontario Ministry of Finance. Includes applicants as of May 2007.

Figure 7: Applicants to colleges, 2001-02 to 2006-07



SOURCE: Colleges Ontario; Ontario Ministry of Finance. Data for 2007-08 not yet available.

life-long learning and as new instructional modes facilitate part-time and distance instruction.

To understand application rates, we need to look at students' decision processes, which almost certainly differ between the two types of source populations.

Within each group, we need to look separately at the decision process for those in under-represented groups. Decisions may be affected by financial considerations – such as tuition fees, student aid, and the availability of jobs that do not require higher education – and also by non-financial considerations such as the expectations of parents and teachers.

As Figure 6 illustrates, the application rate to university for those directly out of high school rose continuously over the period 2001-02 to 2007-08. (The anomalous result for 2003-04 reflects the one-time effect of the double cohort.)

In addition to these secondary school applicants, universities received applications in 2006 from 41,000 applicants who were not coming directly from secondary school. This figure has also grown in recent years.

The pattern for colleges is somewhat different. The majority of applicants to college (about 60 per cent in recent years) do not apply directly from secondary school. Figure 7 shows that the number of college applicants has been stable in recent years at about 13-14 per cent of the population age 18-24. Historically college applications have been closely tied to economic conditions, with the number of applicants rising sharply during recessions. The total number of applicants to college in 2006 was about one-third higher than the total number of applicants to universities.

FINANCIAL AID PROGRAMS

One particularly interesting element of access to postsecondary education is the role of financial assistance in application decisions. Ontario and Canada have introduced a number of changes to government-sponsored student assistance programs in recent years. These changes – which made more students eligible for federal or provincial assistance and provided a greater share of support in the form of grants rather than subsidized loans – include the following:

- The maximum support available to a student from the federal and Ontario governments was increased in 2005-06 from $275 per week to $350 per week – the first increase since 1993. For sole-support parents the maximum increased from $500 to $545. These new levels were unchanged in 2006-07.

- Up-front grants were introduced in 2005-06 and expanded in 2006-07 for first-year and second-year students from low- and middle-income families.

- Parents' expected contributions to the cost of their children's education were reduced in 2004-05 and in 2005-06, and the definition of an independent student was changed so that more students were deemed to be independent of their parents.

As a result of these changes and the larger number of students attending higher education, the Ontario government's expenditure on student assistance was $445.7 million in 2006-07, an increase of $168.8 million, or 61 per cent, since 2001-02. In addition, the government requires universities and colleges to devote a portion of their own resources to student assistance. This amount was $186.9 million in

2006-07, an increase of $41.8 million, or 28.8 per cent, since 2001-02. Actual institutional expenditures on student assistance are much greater than these once merit-based and other types of grants are considered.

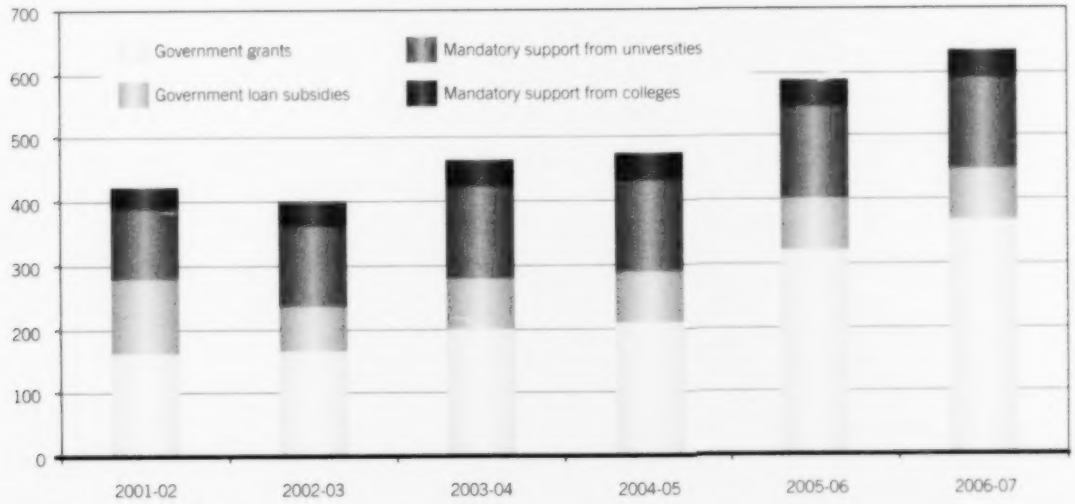
The number of government grants awarded to students increased from 63,000 in 2001-02 to 181,000 in 2006-07. The cost of these grants increased from $161.3 million to $367.9 million during this same period.

The maximum debt that a student must repay to the federal and Ontario governments is $7,000 per academic year, unchanged since 1997-98. For a student who attends university for four years and receives Ontario Student Assistance Program (OSAP) support for any portion of those years, the average repayable debt at graduation was $21,235 in 2005-06. For a student who attends a two-year college program, the comparable figure is $12,239. Both figures have been almost unchanged since 2001-02. These figures exclude any non-government debt such as debt owed to families or financial institutions.[14]

The program changes in recent years present an opportunity for research on how the design of government student aid programs affects prospective students' decisions to apply to college or university. This should include research on the impact on prospective students from underrepresented groups.

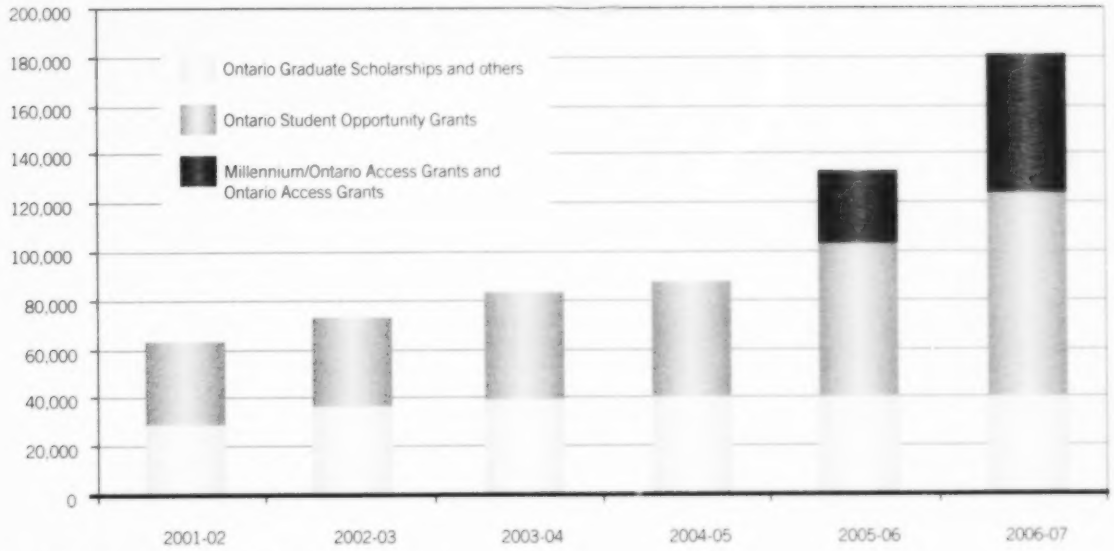
GEOGRAPHIC ACCESSIBILITY AND PROGRAM AVAILABILITY Students' decisions to attend postsecondary education are affected by the geographic proximity of the institution[15] and by the availability of spaces in the desired program of study. Students' ability and willingness to relocate, and their perceptions of program availability, affect

Figure 8: Ontario Government expenditure and government-mandated expenditure on student support, 2001-02 to 2006-07 ($million)



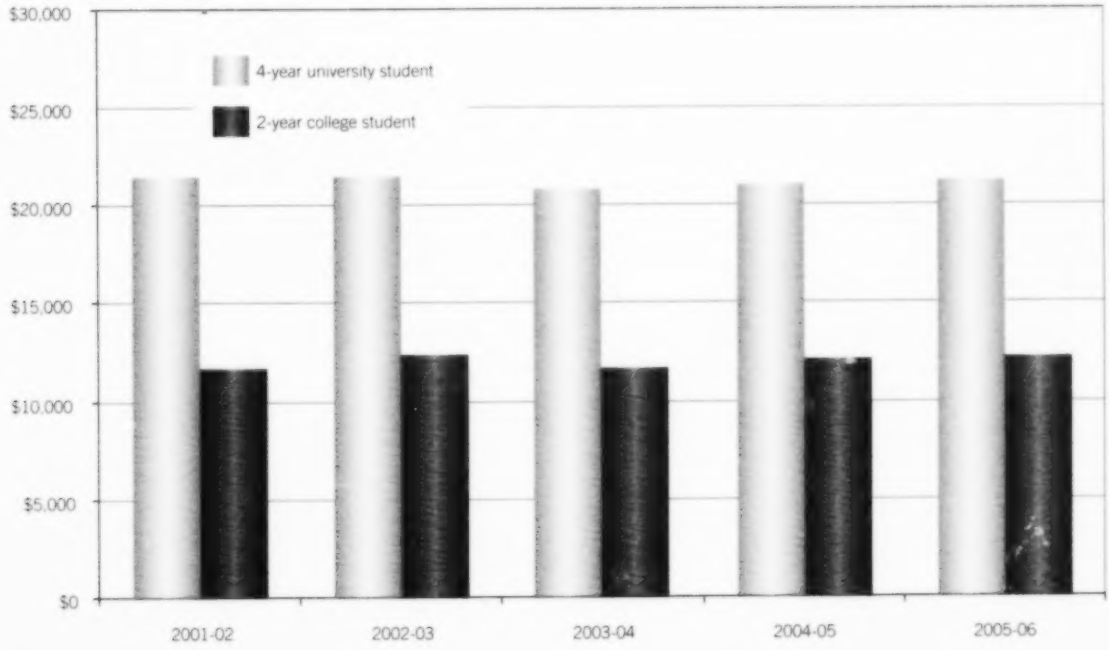
SOURCE: MTCU

Figure 9: Number of government grants to students, 2001-02 to 2006-07



SOURCE: MTCU. Some students may receive more than one type of grant.

Figure 10: Average repayable debt for graduating students who have received federal and ontario student loans, 2001-02 to 2005-06



SOURCE: MTCU

their decisions to apply. The availability of spaces affects institutions' ability to offer admissions.

Thus geographic and program factors need to form part of the Council's research on accessibility. Ideally we would like to know which financial and non-financial factors have the strongest effect on a student's choice of institution and choice of program. Special attention is required to specific factors that may affect students from underrepresented groups.

RETENTION AND COMPLETION RATES While the discussion so far has focused on admissions, accessibility is normally defined to include those students that continue in their programs and complete a credential.

MTCU, universities and colleges make available information on the percentage of entering students who actually complete a degree or diploma. We know that 63.3 per cent of college students who started one-year programs in 2004-05, two-year programs in 2002-03, and three-year programs in 2000-01, graduated by 2005-06; this is an improvement from earlier years. We also know that 74.9 per cent of undergraduate students who started university in 1996 earned a degree from the same institution by 2003, a slight improvement from preceding years.

We would like to know how to improve retention and completion rates generally, and particularly for groups that are traditionally underrepresented. To do this, we need to know more about the pattern of retention and completion rates in universities and colleges for different types of students, including the role of financial and non-financial factors in the decision to continue or drop out. We also need better information about students who move from one institution to another. At present, completion rates do not take into account students who leave an institution and then (possibly after a gap) decide to complete a credential at another institution.

ECONOMIC AND SOCIAL NEEDS Apprenticeship programs, almost all college programs, and a large number of university programs are designed to prepare students for a specific set of career possibilities. Even in cases where a program does not have an explicit vocational or professional purpose, most students will expect to gain the knowledge, skills and values that will prepare them for a rewarding career.

Assessing the potential for higher education policy to contribute to meeting future needs is difficult because of the large number of factors at play. Forecasts of future labour force demand are subject to error as a result of technological change, fluctuation in economic demand, and long-term changes in the structure of the economy. Forecasts of the future supply of workers in a profession are affected by the number of new entrants, the number of retirements, migration, compensation and working conditions.[16]

Despite the difficulties in forecasting, we would like to know more about whether the mix of spaces in the Ontario higher education system will support the continued development of the economy. Where potential shortages are identified, policy solutions may include providing better labour market information to prospective students or better incentives to institutions; or the appropriate solutions may lie outside the higher education system.

16. Lisa Ann McMullin and Martin Dooley, Labour Force Ageing and Skill Shortages in Canada and Ontario (Ottawa: Canadian Policy Research Networks, 2004).

Research priorities

Based on this review, for 2007-08 the Council will initiate research to:

- Improve ways of tracking participation in postsecondary education by under-represented groups.
- Develop evidence-based approaches to improving participation among under-represented groups.
- Determine factors affecting students' likelihood of dropping out of postsecondary education, and develop evidence-based approaches to improving completion rates.
- Identify the key findings in current work on skills shortages by employer groups and economic forecasters in Ontario, and determine whether other jurisdictions with economies similar to Ontario's have been better able to adapt their higher education systems to meet changes in the economic and demographic environment .

In 2008-09 and 2009-10, the Council will initiate research to follow up on the results of the 2007-08 research projects as appropriate. It will also initiate additional research to:

- Assess over the long-term those factors affecting students' choice to attend higher education and their choice of institution and programs, including both financial and non-financial factors.
- Survey and analyze long-term projections of demand for higher education in Ontario.
- Evaluate the capacity of the system to accommodate the magnitude and composition of probable future demand for postsecondary education

Chapter 3: Learning Quality

The second major expectation of the Ontario postsecondary education system is that it delivers a quality learning experience. At the most general level, Ontario needs, and can support, a postsecondary education sector that is a leader in Canada and recognized internationally for the quality of learning it provides.

At the micro level, this goal means that we have institutions with distinctive missions that rank among the best in the world. At the macro level, it means that the system as a whole accommodates the diversity of learners and the range of learning experiences they seek.

The challenge is to make this objective operational. How do we measure learning quality? How can we know how learning quality in Ontario compares to that in other jurisdictions? How can we gauge its changes over time in the context of enrolment pressures, new policy initiatives or other developments?

What We Know

Over time many processes have been developed in Ontario to assess aspects of quality. For example, there are processes to assess individual programs at colleges and universities; to measure the resources devoted to higher education; to measure how many entering students complete a college or university credential; to measure how much time students devote to different types of learning activities; to calculate how many students who start a program complete it; to find out what graduates think of their postsecondary experience; and to determine how graduates fare when they enter the workplace.

The challenge is bring these measures together in a way that gives a coherent account of learning quality in Ontario, something that traditional indicators decidedly do not deliver.

Consider input measures first. A commonly-used summary statistic is operating budget dollars per student. The presumption is that since institutions spend operating dollars on faculty, staff, library and laboratory resources and so forth, and since these inputs are directly employed in student learning, there must be a positive relationship between the quantity of inputs and the quality of the output.

Operating budgets for colleges and universities consist largely of government grants and revenue from tuition fees. On an inflation-adjusted basis, government grants per student in Ontario fell nearly continuously from the late 1980s to 2002-03, but have risen slightly since. On a comparative basis, Ontario is near the bottom among the provinces in terms of grants per student for both universities and colleges. By contrast, and presumably causally related, tuition fees have risen relatively rapidly in Ontario over the same period, and are among the highest in Canada in terms of their share of operating revenue.[17]

17 See COU, "Ontario Universities – 2007 Resource Document" (Toronto: Council of Ontario Universities, March 2007), Table 22; and Colleges Ontario, "2006 Environmental Scan" (Toronto: Colleges Ontario, May 2006), 95.

By these summary measures, and assuming a simple relationship between operating budgets and learning quality, one might conclude that colleges and universities in Ontario had relatively good quality in the late 1980s, but have been declining in quality since, or at least until very recently when new investments have turned things around slightly; and compare unfavourably to peer institutions. Organizations representing many of those who work in the higher education system have presented evidence on the effects of current or recent resource levels on education in the classroom. [18]

However, perceptions of the quality of outputs and outcomes in higher education show a different picture. The Canadian Council on Learning recently reported, "Student, graduate and employer surveys demonstrate high levels of satisfaction with the quality of Canadian PSE [postsecondary education]."[19] For example:

- First-year students at Ontario universities who were asked to evaluate their entire educational experience at the university on a scale of 1 to 4 (where 1 meant poor, 2 meant fair, 3 meant good, and 4 meant excellent) gave a mean response of 3.06, while fourth-year students gave a mean response of 3.01.[20]
- In 2005-06, 82 per cent of Ontario college graduates said they were satisfied or very satisfied with the usefulness of their college education in achieving their goals after graduation, while 92 per cent of employers said they were satisfied with the employee's college preparation for the type of work the employee was doing.[21]

Economic measures also suggest continued good outcomes:

- Of the Ontario university graduates surveyed in 2005-06 who sought employment, 92.2 per cent were working six months after graduation, and 96.8 per cent were working two years after graduation. Among Ontario college graduates, 90.1 per cent were working six months after graduation. For both sectors the employment rates are virtually constant over a seven-year period.[22] While there are some differences among programs, employment rates are generally high for all of the large program areas at both colleges and universities.
- National data show that the earnings gap between workers age 25-34 with a high school education and those with a postsecondary education widened between 1980 and 2005, although earnings of less educated workers have improved somewhat since 2000 as a result of the boom in

oil and gas, mining and construction.[23] These results are for Canada as a whole, but given Ontario's weight in the data they are likely to reflect the picture for this province.

How is it possible that students at universities and colleges with constrained resources continued to achieve impressive outcomes? One explanation is that learning environments have changed dramatically in recent years. There is much evidence that universities and colleges have placed an increased emphasis on effective teaching. Virtually every institution supports a centre for teaching and learning where leaders in pedagogy share new concepts and assist other faculty. Excellence in teaching is increasingly recognized through internal and external awards. The use of technology in instruction is pervasive. There are new diploma programs and degree programs, interdisciplinary studies, combined undergraduate and graduate degree options and experiential learning opportunities.

As well, the sector remains committed to monitoring and promoting quality, and it devotes considerable time and resources to this end. Quality reviews typically involve experts from other provinces and countries. From this perspective, Ontario's programs and degrees and diplomas are continuously evaluated against external standards.

This review of some of the evidence on quality reinforces how difficult it is to measure the quality of higher education. There are many possible indicators of quality. Some are based on measuring inputs; some look at the way resources are used at universities and colleges; and some look at how students fare after they graduate. The relationships among these indicators are seldom examined in a rigorous way.

What We Need to Know

What is missing is a quality framework for higher education in Ontario. In this context, a "framework" can be defined as a way of organizing information so that we can draw useful conclusions from it. A framework would allow us to see how the many quality-related processes now in place relate to one another. For example:

- A framework might help us spot aspects of quality where too little information is being gathered (and perhaps other aspects where too much is gathered).

- A framework may suggest priorities for research. For example, it may highlight areas where we have a poor understanding of the relationship between inputs and outputs or outcomes.

- A framework might also illuminate relationships between quality-related activities, so that we do not change one aspect of the higher education system in a way that has unintended consequences for other aspects. For example, if surveys showed that more students were completing their programs and graduating, a framework would help us see whether this was attributable to higher student achievement or to a weakening of academic standards.

It is useful to start with a conceptual framework or model of the learning process. Several recent studies have suggested a staged approach to thinking about learning quality.[24] Drawing from these studies, we might see a quality framework with four stages:

- First, we would have information on the characteristics of students entering the postsecondary system, such as their aptitudes, knowledge and skills from secondary school. For purposes of measuring learning quality, we need to have information on what students have already learned at the time they enter higher education. For students who are admitted based on their secondary school performance, prior learning is typically inferred from their secondary school courses and grades and is often expressed as an average of the student's Grade 12 marks. For students who are admitted as adult learners, universities and colleges may take into account a variety of indicators of prior learning, and these are less easy to distill.

- We would also have information on the resources devoted to learning, such as full-time and contractual faculty, physical plant, libraries, laboratories and so forth. Colleges and universities combine inputs to learning in various ways, and so we need to have information about how the inputs are deployed.

- Next, we would have information on what students actually learned by the time they left higher education. Learning includes general skills such as critical thinking, problem-solving and communication; softer skills such as being able to work with others; and technical and disciplinary skills (such as how to carry out a study, design a website, build a bridge or perform a health procedure).[25]

- We would go on to track the students' final outcomes after leaving higher education. Labour market indicators such as employment rates and earnings are measures of final outcomes, but so too are indicators of how education contributes to civic engagement and individual quality of life.

This multi-stage framework would allow us to judge the quality of a learning experience by the value it adds for the students. The greater the difference between the students' beginning characteristics and the final outcomes, the higher the quality of the learning experience.

While general and abstract, the framework is useful in identifying what we ideally would like to measure with respect to learning quality, and how this ideal measure compares to those currently in use.

24 See, for example, Ross Finnie and Alex Usher, "Measuring the quality of postsecondary education: Concepts, current practices and a strategic plan" (Ottawa: Canadian Policy Research Networks, 2005); Daniel W. Lang, "The political economy of performance funding," in F. Iacobucci and C. Tuohy (eds.), *Taking public universities seriously* (Toronto: University of Toronto Press, 2005), 230-247; G.D. Kuh, J. Kinzie, J.A. Buckley, B.K. Bridges, and J.C. Hayek, "What matters to student success: A review of the literature" (Washington, DC: National Postsecondary Education Cooperative, 2006); Z.B. L.W. Perna and S.L. Thomas, "A framework for reducing the college success gap and improving success for all" (Washington, DC: National Postsecondary Education Cooperative, 2006); 5; and Canadian Council on Learning, *Canadian postsecondary education: A positive record – an uncertain future*, 2006.

25 The Council of Ministers of Education, Canada (CMEC)'s recent Ministerial Statement on Quality Assurance of Degree Education in Canada sets out guidelines for a degree qualifications framework, procedures and standards for new degree program quality assessment and for assessing new degree-granting institutions. The framework contains detailed descriptions of expected learning outcomes for Bachelor's, Master's and Doctoral degree programs. The universities' Ontario Council of Academic Vice-Presidents (OCAV), the Ontario Council of Graduate Studies (OCGS) and the colleges' Program Quality Assurance Process Audit (PQAPA) have each made efforts to define appropriate learning outcomes for students, and to ensure that they become part of the regular review processes.

There are many sources of quality-related information for students at universities and colleges. These sources are summarized in Table 2. To transform this large volume of information into meaningful measures of added value is not a small task, but the data present many opportunities for building a better understanding of how the elements of higher education relate to one another.

Table 2: Selected sources of quality-related information on postsecondary education in Ontario

	Beginning characteristics	Learning inputs	Learning outputs	Final outcomes
COLLEGES				
System level	Statistics Canada Colleges Ontario OCSES OCAS	Statistics Canada Colleges Ontario	KPI – graduation rate	Statistics Canada KPI – employment rate, employer satisfaction
Institution level	OCSES OCAS FITS	Colleges Ontario PQAPA	KPI – graduation rate, student satisfaction PQAPA	KPI – employment rate, employer satisfaction
PROGRAM LEVEL				
Postsecondary	OCSES OCAS	CVS Internal reviews conducted by each college	CVS KPI – graduation rate, student satisfaction Internal reviews conducted by each college	KPI – employment rate, employer satisfaction
Apprenticeship			Provincial qualification exam	
UNIVERSITIES				
System level	Statistics Canada COU NSSE OUAC	Statistics Canada COU	KPI – graduation rate	Statistics Canada KPI – employment rate
Institution level	NSSE OUAC	COU UPRAC	NSSE KPI – graduation rate CSRDE UPRAC	KPI – employment rate
PROGRAM LEVEL				
Undergraduate	NSSE OUAC	Internal reviews conducted by each university	KPI – graduation rate CSRDE Internal reviews conducted by each university	KPI – employment rate
Graduate		OCGS	GPSS OCGS	Statistics Canada
Professional		Accreditation bodies	Accreditation bodies GPSS	Statistics Canada

CGPSS	Canadian Graduate and Professional Student Survey (universities)
COU	Council of Ontario Universities
CSRDE	Consortium for Student Retention Data Exchange (universities)
CVS	Credential Validation Service (colleges)
FITS	Freshman Integration and Tracking Systems (colleges)
KPI	Key Performance Indicators
NSSE	National Survey of Student Engagement (universities)
OCAS	Ontario Colleges Application Service
OCGS	Ontario Council on Graduate Studies (universities)
OCSES	Ontario Colleges Student Engagement Survey
OUAC	Ontario Universities Application Centre
PQAPA	Program Quality Assurance Process Audit (colleges)
UPRAC	Undergraduate Program Review Audit Committee (universities)

A STARTING POINT: STUDENT ENGAGEMENT Colleges and universities have taken steps to begin measuring student engagement – that is, the time and energy students devote to educationally useful activities, and the practices that institutions adopt to encourage students to take part in these activities.[26]

- Colleges have a long record of measuring students' and graduates' satisfaction through Key Performance Indicators surveys. Many colleges also measure the experiences and perceptions of entering students through the Freshman Integration and Tracking Systems (FITS). Beginning in 2006, all Ontario colleges adopted the Ontario Colleges Student Engagement Survey (OCSES). This survey gathers information on the characteristics, experience, academic success and persistence, and engagement of students.

- Beginning in 2006, all Ontario universities adopted the National Survey of Student Engagement (NSSE) for undergraduates. A few Ontario institutions also participated in 2004. This widely-used survey, developed at Indiana University, is based on research showing that students' learning is closely related to how much time they spend engaged in their studies, including homework and interactions with faculty and with other students. Thus NSSE is somewhere along a continuum of learning quality indicators: more than an input measure but short of a pure output measure.

- Ontario universities are also introducing a survey on the experiences of graduate and professional students, the Canadian Graduate and Professional Student Survey (CGPSS). An earlier version of this survey was administered at some institutions.

These engagement surveys are a useful baseline for research on learning quality. We propose to use insights from these surveys as a starting point for assessing value-added, working backward to examine input indictors and forward to examine final output measures.

BEGINNING CHARACTERISTICS We noted in Chapter 2 the need for accurate and up-to-date information on the characteristics of students who participate in postsecondary education, and especially those in underrepresented groups. This information is important both in measuring accessibility and in ensuring that a high-quality education is available to a diverse student population.

INPUT MEASURES Input measures alone are not a measure of quality, but information on how changes in inputs affect quality would be highly useful for policymakers and administrators. We would like to know:

- Are there input indicators that appear to be highly and consistently correlated with learning outcomes or with student engagement?

- What is the experience in other jurisdictions in linking input measures to quality?

- What is the experience in other sectors, such as the health care sector, in linking input measures to quality?

26 George Kuh, "What we're learning about student engagement from NSSE: Benchmarks for effective educational practices," *Change* 35.2 (2003): 24-32.

DEPLOYING RESOURCES: TEACHING The Rae Report urged the Council to "lead [. . .] a renewed focus on the pre-eminence of teaching and teaching excellence at postsecondary institutions" and to "work with institutions on research and identification of best practices in the field of teaching excellence."[27] This advice was echoed in many of the responses to the Council's 2006 discussion paper.

We would like to know:

- Are there teaching practices in higher education that are demonstrably better yet are not in widespread use, e.g., problem-based learning or inquiry learning? If so, what are the barriers to adopting best practices?

- How much does research activity motivate teaching excellence? What are best practices for integrating the two?

- What models have other jurisdictions adopted to promote effective teaching? What are the most valuable options for sharing best practices with respect to teaching and learning?

- Have other jurisdictions made use of data from student engagement surveys or similar sources to identify effective teaching practices?

DEPLOYING RESOURCES: STUDENT SERVICES The Rae Report said that "the [Council's] focus should include student services, a critical but often ignored component of students' experience."[28] Colleges and universities are increasingly focusing on the role of student services play in a quality learning environment.

We would like to know:

- What can we learn from surveys about the role of student services in learning quality?

- How do student services in Ontario's colleges and universities compare to those at peer institutions elsewhere?

LEARNING OUTPUTS The postsecondary sector does a considerable amount of self-monitoring. Five processes are in place to assess the quality of individual programs at universities and colleges.

- University graduate programs are directly assessed every seven years using a peer-review process organized by the Ontario Council on Graduate Studies (OCGS).

- University undergraduate programs are assessed through the Council of Ontario Universities' Undergraduate Program Review Audit Committee (UPRAC). This process does not directly examine academic programs. Instead, UPRAC audits each institution's process for conducting internal quality reviews of its own programs, to ensure that the institution's process meets standards agreed to by COU.

27. *Ontario: A Leader in Learning*, 51.
28. *Ontario: A Leader in Learning*, 55.

- College postsecondary programs are assessed through the Program Quality Assurance Process Audit (PQAPA). Like UPRAC, PQAPA audits each institution's process for conducting internal quality reviews of its own programs

- Most professional programs regularly submit to formal accreditation reviews.

- College applied degree programs, and degree programs from private and out-of-province universities are approved by the Minister of Training, Colleges and Universities based on the advice of the Postsecondary Education Quality Assessment Board (PEQAB). The PEQAB process is independent and is not a form of self-monitoring.

Self-monitoring will continue to be an important feature in a system where institutional autonomy is highly valued. It is useful, however, to enquire into how effective the monitoring has been, and how it might be improved.

Specifically, we would like to know:

- How extensively and effectively are formal statements of learning outcomes and degree/diploma expectations being implemented as part of long-range academic planning?

- How effective are existing processes for monitoring and assessing quality? Are they efficient and cost-effective? How might the processes be improved?

- How do these self-assessment processes compare to those in place in other jurisdictions?

In the longer term, we would like to know more about direct measures of how much students learn at college or university. For example, the Collegiate Learning Assessment and Community College Learning Assessment in the United States are trial projects to gauge value added in learning, focusing on critical thinking, analytical reasoning, problem-solving and writing.[29] The projects use two methodologies. The first tests a representative sample of an institution's first-year students and a different representative sample of that institution's graduating students, and compares skill levels in the various categories. The second assesses a representative sample of first-year students and then follows them through to graduation where they are given a final assessment. Institutions are provided with an assessment of their value added, taking into account differences in the types of students served by each institution.

We intend to follow these and other pilot projects in our research strategy. Specifically, we would like to know:

- How successful have the projects been in gauging learning outcomes?

- How have participating institutions used the results to guide educational programs and practices?

- How easily might the successful projects be adopted in Ontario?

- How cost effective are they? Are the potential benefits for Ontario postsecondary education worth the extra costs?

29 Collegiate Learning Assessment Consortium 2007, Council of Independent Colleges, July 16, 2007 http://www.cic.edu/projects_services/cla/index.asp; Community College Learning Assessment, 2007, Council for Aid to Education, July 16, 2007 http://www.cae.org/content/pro_collegiate.htm. Another U.S. project is the National Forum on College-Level Learning (see Margaret Miller, "Assessing college-level learning," 2005, National Centre for Public Policy and http://www.highereducation.org/reports/pa_learning/).

FINAL OUTCOMES Even if we had excellent data on learning outputs, we would still not have a complete picture of the quality of postsecondary education. We are also interested in how education contributes to future earnings, individual quality of life, social cohesion and citizen engagement.

There is some information available on what happens to university undergraduate students and college postsecondary students after graduation.

Through the Key Performance Indicators (KPI) surveys, the Ministry of Training Colleges and Universities and individual institutions gather detailed information on the labour market status of graduates six months after graduation, including types of employment and salary levels. For universities, this information is also available by institution and program for graduates two years after graduation.

For colleges, two additional surveys are conducted: one asking about the graduate's satisfaction with the program; the other about employer satisfaction with the graduate.

This information is supplemented by Statistics Canada surveys that provide outcomes data on a system-wide level. Non-economic outcomes such as effective citizenship have generally received little attention, although some information is available from Statistics Canada and other surveys.

We would like to know

- How useful are the current KPI measures as a guide to assessing learning quality? Are there better measures of job market experience?
- Should we develop more general measures of learning quality such as surveys of graduates after five and ten years? Would the additional information gleaned be worth the extra cost?

APPRENTICESHIPS The Rae Report encouraged a higher profile for apprenticeship programs as an option for those pursuing postsecondary education. The report noted that there are opportunities to simplify the process by which prospective apprentices begin their training and to make it easier for apprentices to transfer into college postsecondary programs.

Apprenticeship in Ontario has distinctive processes for governance and instruction. Students write a provincial qualifications test in order to become licensed. Apprenticeship programs have generally been treated separately from the quality processes that are applied to other college and university programs.

We would like to know:

- What processes are commonly used in other jurisdictions to evaluate apprenticeship programs? What evidence is there that these processes support and facilitate continuous improvement of apprenticeship programs?
- Does quality monitoring help make apprenticeship comparable in prestige and status to college and university undergraduate programs?

Research priorities

Based on this review, for 2007-08, the Council will initiate research to:

- Assess methods of using information from student surveys (NSSE, OCSES and CGPSS) to understand and improve learning quality.

- Determine ways of using information from self-assessment process (OCGS, UPRAC and PQAPA) to improve learning quality.

- Ensure that publicly-available information on quality in higher education incorporates apprenticeship as an optional pathway alongside university and college post-secondary programs.

In 2008-09 and 2009-10, the Council will initiate research to follow up on the results of the 2007-08 projects, and will also pursue additional research to:

- Investigate how to identify and promote best practices in teaching.

- Investigate how to identify and promote best practices in student services.

- Understand the effectiveness of standard tests or other direct measures of learning in improving learning quality.

- Build a comprehensive learning quality framework.

Chapter 4: Accountability

It is widely understood that Ontario's publicly funded higher education system should be accountable to its citizens. We understand accountability to mean that universities and colleges have a responsibility to answer questions about how they fulfill their legislated responsibilities and how they use the resources provided by governments, students, and others.

We focus on two dimensions of accountability:

1. *The sector's relationship with current and prospective students.* Students should have access to information in a format that will help them make informed choices among institutions and programs.

2. *The sector's relationship with the public, as represented for these purposes by the government.* There should be an effective process for evaluating how the sector is performing relative to public goals such as accessibility and learning quality.

In both cases, the accountability formats should be transparent and should take into consideration both the costs and benefits of gathering and reporting information.

Yet information about performance, by itself, is not enough. Monitoring and evaluation can highlight areas for improvement, but change must come from the institutions themselves. The best-formulated plans for enhancing performance are certain to fail if the institutions are not able to respond.

Colleges and universities must have the resources necessary to meet expectations with respect to enrolment, teaching and learning, research and knowledge transfer, public engagement and so forth. As Payam Pakravan noted in a recent C.D. Howe Institute study, "It is highly doubtful that more money always means more quality, but it is certain that quality requires enough money."[30]

The sector must be responsive to challenges and opportunities as they arise. There is a long and valuable tradition in Ontario of institutional autonomy. In part because of this autonomy, Ontario's colleges and universities have adapted effectively to significant shocks over the past two decades, including enrolment pressures, internationalization and new technologies. Government policy and financing must be fashioned in a way that encourages colleges and universities to continue to advance public goals.[31]

30. Payam Pakravan, "The Future is Not What it Used to Be: Re-examining Provincial Postsecondary Funding Mechanism in Canada," C.D. Howe Institute Commentary No. 217 (Ottawa: Renouph Publishing Company Limited, February 2006).

31. In the social sciences this is known as a principal-agent problem. See Pakravan for a discussion of agency theory in the context of postsecondary education.

What We Know

FACILITATING STUDENT CHOICES The range of institutions, programs and student services in Ontario's postsecondary education sector is enormous, and it can be confusing to students wishing to make informed choices. Colleges and universities publish information in print and on websites, but much of that material, understandably, is intentionally promotional in nature.

For students wishing to compare options over a number of institutions and programs, the wide variation in content and format of the information can be a formidable challenge. At the same time, we believe students are not well served by institutional rankings that underestimate the differences in institutions' mandates and in individual students'needs and preferences.

Colleges have a long history of reporting publicly on the employment outcomes of graduates from individual college programs. Additional information is available to students on graduation rates, student satisfaction rates, employer satisfaction rates, and graduate satisfaction rates.[32]

Beginning in 2006, Ontario universities developed and published Common University Data Ontario (CUDO).[33] CUDO offers information on a wide range of items of interest in a common template form, including: number of degrees awarded, student enrolment and entering averages – all by program; number of students living on campus and activities offered; student satisfaction; first-year tuition and ancillary fees by program; number of teaching faculty; undergraduate class size, by year level; research awards granted; and graduation rates and employment rates by program.

These resources provide a strong base for students wishing to know more about their college and university options. Over time, research may lead the Council to suggest other types of information that would help students make the educational choices that are best for them.

PUBLIC ACCOUNTABILITY, CAPACITY AND RESPONSIVENESS Interest in developing indicators to measure and evaluate the performance of the higher education sector in meeting public goals gained momentum in the 1980s and 1990s and has become international in scope. The U.K. and Australia are leaders in the area. Performance indicators of one kind or another have been put in place – usually with some controversy – in most U.S. states and Canadian provinces, including Ontario.

The essential challenge is to find ways to measure and evaluate performance in higher education that are transparent and can inform decision making by institutions and the government alike.

We suggested some system-level indicators in Chapters 2 and 3 of this Plan. With regard to accessibility, we suggested that Ontario's aggregate participation rate should be among the highest in Canada and should compare favourably to

32 Ontario Ministry of Training, Colleges and Universities, "Employment Profile, 2004-2005: A Summary of the Employment Experiences of 2004-2005 College Graduates Six Months after Graduation," July 16, 2007, http://www.tcu.gov.on.ca/eng/labour/research/emp0405profile.html; Ontario Ministry of Training, Colleges and Universities, "Colleges Key Performance Indicators," July 16, 2007, http://www.tcu.gov.on.ca/eng/publications/kpi2005.html.

33 Council of Ontario Universities, "Common University Data Ontario," July 16, 2007, http://www.cou.on.ca/publications/cudo.asp.

that of other advanced economies. Further, we suggested that the participation of underrepresented socio-economic groups in postsecondary education should closely approximate that of the population as a whole. With respect to learning quality, we suggested again that Ontario's performance should lead in Canada and should compare favourably to those in comparable jurisdictions internationally.

At the institutional level, universities and colleges have devoted considerable time and resources in recent years to developing accountability measures. The normal procedure in developing institution-specific indicators is to start with mission and vision statements, articulate general goals that relate to the mission and vision statements, and then choose performance indicators that relate to general goals. More sophisticated versions aim for some variant of a balanced scorecard, where targets are set out explicitly and performance is literally assigned a grade.

As part of its *Reaching Higher* plan, the government has introduced accountability agreements with each college and university. These multi-year agreements have a three-year term but are reviewed annually. The first set was signed in 2006-07, to run to 2008-09. The attraction of this approach is that it recognizes and supports the diversity of institutions in Ontario's postsecondary education system. Goals and performance measures are tied to unique missions and visions.

What We Need to Know

The shared interest of government and institutions in developing measures of performance creates an opportunity to encourage processes that complement rather than compete with one another.

Specifically, we would like to know:

- Can we identify some best practices for performance indicators at the institutional level? For example, what are the benefits and costs of moving towards a balanced scorecard template?

- If there are best practices, what are the barriers to their general diffusion?

- How effectively have performance indicators been used in academic and financial planning in colleges and universities?

- Are there effective ways of linking the performance indicators that institutions have adopted for themselves with the requirements of the multi-year agreement process?

- Are there indicators that might be adopted by most or all institutions in the multi-year agreement process, without detracting from the uniqueness of individual institutions?

Research Priorities

In 2007-08, the Council will initiate research to:

- Identify a best practices framework for accountability at the institution level.
- Advise on an effective and efficient framework for multi-year agreements with colleges and universities.
- Identify challenges and opportunities facing Ontario's colleges and universities in the medium-term.

In 2008-09 and 2009-10, the Council will initiate research to follow up on the results of the 2007-08 research projects, and will also initiate research to:

- Identify determinants of the abilities of colleges and universities to respond to challenges and opportunities.

Chapter 5: Inter-Institutional Relations

As part of its mandate, the Council has been asked to conduct research "on the means of encouraging collaboration between various postsecondary educational institutions in general and in particular in matters relating to the recognition by such institutions of courses and programs of study provided at other such institutions." Closely related to this, the Council has also been asked to conduct research "on the development and design of various models of postsecondary education." [34]

Collaboration has two dimensions: first, between the college and university sectors; and second, among individual institutions within each sector.

Ontario's higher education system was not originally structured to create systematic pathways from one institution to another or to have institutions offer joint programs. Each university was chartered separately, with a high level of autonomy over its academic programs and conditions of admission. When the college system was created in the mid-1960s, the government's vision was that students would choose to attend either university or college, with only a small number attending college and then choosing to proceed to university, or vice versa.

Creating additional pathways for students to transfer between or among institutions, and especially from college to university or vice versa, has been a government goal for at least two decades. More recently, there has been government encouragement and support for joint programs, including some very innovative ones in which the partners are one or more colleges and one or more universities.

Inter-institutional collaboration is valued because of the contribution it can make to enhancing accessibility, expanding the range and rigour of learning opportunities, and meeting the needs of students who seek professional careers that require both theoretical and hands-on instruction. Where these conditions are met, it is essential that transferability and collaborative programming function efficiently and effectively.

What We Know

TRACKING STUDENTS WHO TRANSFER AND MEASURING THEIR SUCCESS There is widespread agreement that students who transfer from one institution to another should not be required to repeat what they have already learned. But there is much contention about whether this goal is being achieved and, if not, what should be done about it.

Limited information is available on college-university transfers:

- The Ontario College-University Transfer Guide lists a total of 271 formal agreements between colleges and universities to create pathways for students who want to move

34 *HigherEducation Quality Council of Ontario Act*, S. 5 (c.).

from one postsecondary sector to the other, up from 220 agreements in 2004. The majority of these are bilateral agreements involving one university and one college, but some are multilateral.[35]

- There are many cases where a college and a university have established a formal partnership to create and market integrated programs for students. Examples include Seneca@York, the Mohawk-McMaster Institute for Applied Health Sciences, the University of Guelph-Humber, the partnership between the University of Toronto at Scarborough and Centennial College, and Laurentian University at Georgian.

- Surveys of college students and graduates show that 7.8 per cent of 2004-05 college graduates were registered in an Ontario university degree program six months after graduation, up from 3.9 per cent in 1999-2000. 4.1 per cent of 2002 university graduates were enrolled in an Ontario college six months after graduation, similar to the 3.7 per cent figure for 1997 graduates.[36]

What We Need to Know

The available information on students who transfer from one institution to another tells us little about the student's academic performance, either before or after the transfer. The information also does not address the issue of whether students are receiving appropriate recognition for prior learning. Recent regulatory changes will make it possible for the Ontario Education Number (OEN) – a permanent student number assigned to each student in the K-12 system – to be used by the college and university application centres and publicly assisted postsecondary institutions.[37] The introduction of the OEN at the postsecondary level, along with other data sources, opens the possibility of answering many questions that have not been adequately answered in the past. We would like to know:

- What are the patterns of transfers among institutions: college to university; university to college; between universities; between colleges?

- Why do students seek to transfer between sectors or among institutions?

- Does transferability enhance accessibility to postsecondary education?

- How much transfer credit is offered to students who seek to transfer?

- How do transfer students perform academically relative to non-transfer students?

- What are the links between transferability and completion rates?

ASSESSING PARTNERSHIPS BETWEEN UNIVERSITIES AND COLLEGES The incidence of programs offered jointly by one or more colleges and one or more universities has increased significantly in recent years. In some cases, institutions and students judge these programs a success. In others, the difficulties in design and management have been significant.

We would like to know:

- What explains the choice of joint programs to date?
- What are the benefits and costs of joint programs? Do they enhance the range and quality of learning opportunities available to students? Do they improve the career opportunities available to students?
- Why do some joint programs work relatively easily while others do not?
- Would it be desirable to see more such partnerships? If so, what policy changes would facilitate this?

ASSESSING SUCCESS IN INTER-INSTITUTIONAL COLLABORATION We also need a clearer view of how to assess success in inter-institutional collaboration. One way of clarifying these issues is to look more closely at transfer models in other jurisdictions – including how transferability is incorporated into the design of the system.

We need a better understanding of whether transfer systems in other jurisdictions are more successful than Ontario's in contributing to public goals for higher education. For this purpose, we understand the goals of collaboration to be meeting the needs of qualified students who wish to transfer, and enhancing the range and quality of learning opportunities.

We would like to know:

- How do higher education systems with a high degree of inter-institutional transfer differ from Ontario's? For example, are there differences in the core missions assigned to the college sector and the university sector? Are there differences in how the higher education system is governed? Are these systems more successful than Ontario's in achieving the goals of quality, accessibility and accountability?
- If Ontario were to adopt a transfer model used in another jurisdiction, what policy changes would need to be made?

Research Priorities

In 2007-08, the Council will initiate research to:

- Assess the potential of using the Ontario Education Number and other data sources to track students who apply to transfer from one institution to another.

- Identify factors that have supported the development of selected joint college-university programs.

- Examine models of inter-institutional transfers in other jurisdictions.

In 2008-09 and 2009-10, the Council will initiate research to follow up on the results of the 2007-08 projects, and will also initiate research to:

- Understand Ontario students' experience in transferring from one institution to another, including: reasons for applying to transfer; reasons that applications were accepted or rejected; amount of advanced standing granted; and student success in the recipient institution.

- Understand and enhance the scope and effectiveness of joint programs.

Chapter 6: Conclusion

As we publish our first report and research plan after only a few months of operation, we are mindful of how much we do not know. But that, in a sense, is the point of it all. It is precisely because not enough is known about certain salient features of postsecondary education in Ontario that HEQCO has been created. Our first research plan, with a timeframe of three years, should enable us to prove that the government's decision to create an independent agency for this purpose was a sound one.

We believe that the questions we have posed for investigation are good ones, but we know they are not the only ones that matter, and we will remain receptive to ideas and proposals for research in the coming months and years. Our emphasis will be upon projects that seem most likely to provide a basis for us to furnish sound policy advice to government.

We are aware that the factors of success are not entirely within our own control. We shall need the support of the major organizations and agencies that have a vital interest in Ontario higher education – those representing students, faculty, presidents, employers, and governments. We pledge to make our best efforts to work cooperatively and to consider every reasonable point of view. At the same time, we will maintain the independence upon which our uniqueness and usefulness rest. Given our mandate, we are bold enough to believe that our success will represent progress for higher education in Ontario. Given our experience to date, we are optimistic that we will have the support we need.

It is important that, over time, we should address the essential issues of Ontario higher education in its rich entirety. From the most applied to the most theoretical aspects, Ontario needs an education system that is accessible, accountable, and of the highest possible quality. As John W. Gardner put it, "The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water."[38] The Council's remit encompasses the full range of postsecondary education, as we hope is evident in the research agenda we have outlined in this document.

38 John W. Gardner, Excellence: Can We Be Equal and Excellent Too? Revised Edition (New York: W.W. Norton, 1984), 102.